所別：___機電工程研究所___　組別：_____　科目：___靜力學___

注意：□不准 ☑一般計算器 ☑工程用計算器，考試時間總計：　分鐘。試題共 1 頁，第 1 頁

每題 25 分，總分 100 分。

1. The airstroke actuator at D is used to apply a force of F= 200 N on the member at B. Determine the reaction forces at the pin A and the force of the smooth shaft at C on the member. (See Fig. 1)

2. Replace the force system acting on the truss by a resultant force and couple moment at point C. (See Fig. 2)
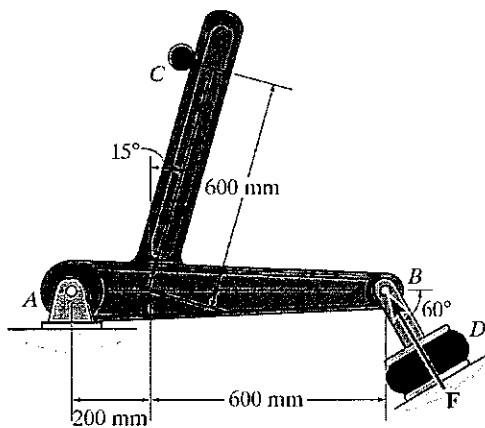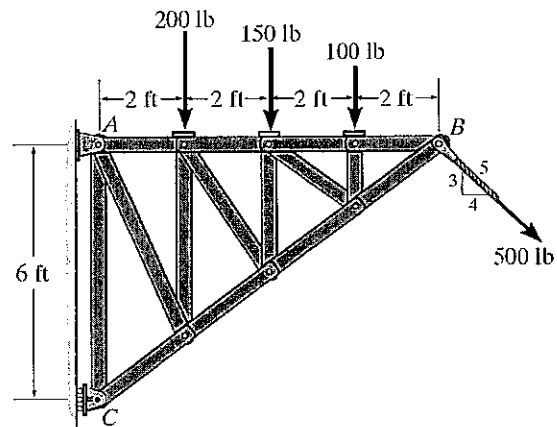

Fig. 1

Fig. 2

3. Draw the shear and moment diagrams for the cantilever beam. (See Fig. 3)

4. If the coefficient of static friction between the crate and the ground is μ_s = 0.3, determine the minimum coefficient of static friction between the man's shoes and the ground so that the man can move the crate. (See Fig. 4)
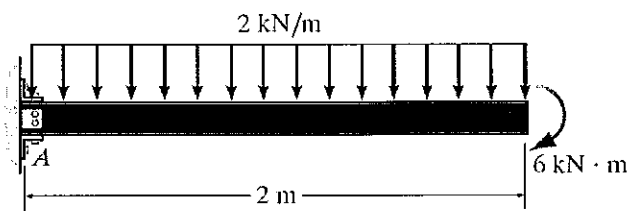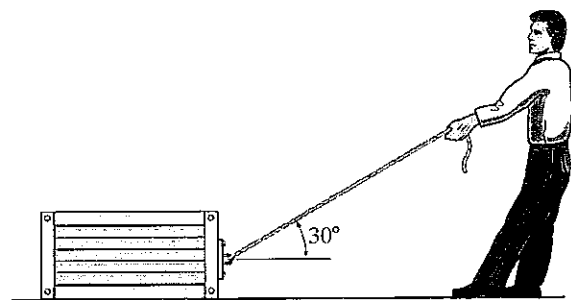

Fig. 3

Fig. 4